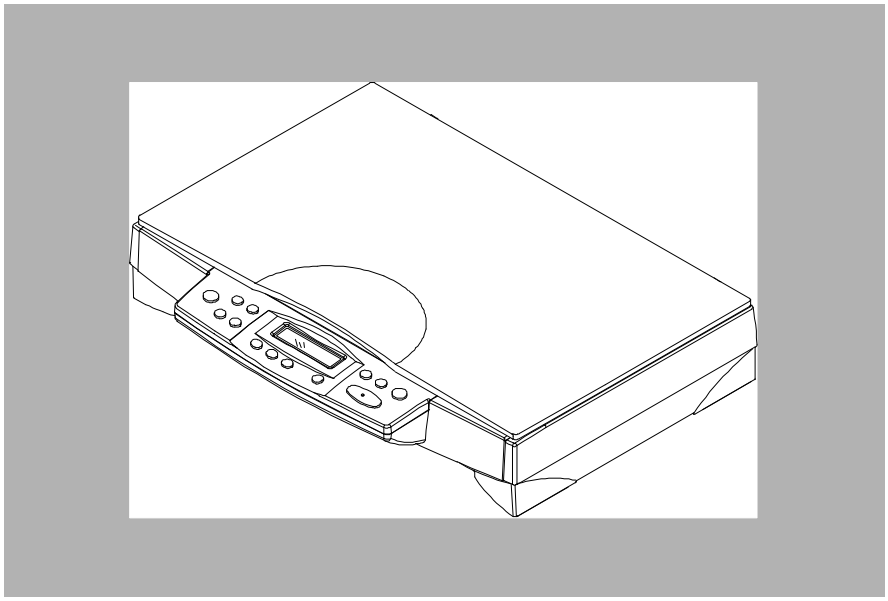
ScanCopier Service Manual



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Avision Inc.

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1. INTRODUCTION

1.1 General Notes for Servicing
1.2 General Description
1.3 Features

This manual is intended to be used by the maintenance engineers. It describes areas to be maintained, the detailed installation, and the component replacement procedures as well as the main trouble shooting guides.

Please take your time to read this manual thoroughly to obtain comprehensive knowledge about the ScanCopier before serving the unit.

1.1 GENERAL NOTES FOR SERVICING

(1) Before trying to disassemble the ScanCopier, make sure the power supply code of the ScanCopier is disconnected from the power outlet. Under any circumstance, do not remove from or install the PWBs or connectors onto the ScanCopier with the power supply turned ON.

(2) Use caution not to drop small parts or screws inside the unit when disassembling and reassembling. If left inside, they might cause the malfunction of the unit.

(3) Do not pull the connector cable when disconnecting it. Hold the connector.

(4) When carrying PWBs or the scanning head unit, put it in an anti-static bag.

(5) Keep the document table glass surface always clean. If contaminated, use a dry clean cloth for cleaning.

(6) Use caution not to injure your fingers or hands when disassembling or reassembling the unit.

1.2 GENERAL DESCRIPTION

ScanCopier is a fantastic digital copier when it is connected to a laser printer. The digital solution makes your reproduction exceedingly clear and sharp compared to regular copy machines. Through auto photo and text separation feature, your photo reproduction is amazingly improved with details and greyscale. The ScanCopier is also easy to use since the control panel on the front looks just like a panel on a regular copier. Users can enjoy copying almost immediately without further learning.

ScanCopier is also a scanner when it is connected to a host computer. With a simple touch of the "Scan" button, the ease-of-use scanning software immediately pops up on your computer screen. Without further leaning, you can get a scan image and link the image to a variety of applications, for example, the image-editing software, the OCR(Optical character recognition) software, the E-mail software, the Fax software, etc. to make your jobs done in just a second.

1.3 COPY FEATURES

(1) A Compact and light weight copier

With only 3.7 kgs and a small foot print few inches more than an A4 page, ScanCopier is easy and convenient to transport and relocate to fit your ever changing requirement.

(2) Ease of Use

The control panel on the front of ScanCopier looks like a panel on a regular copier. The operating steps follow the same procedure as other regular copier.

(3) Auto photo and text separation

Incorporated with the dialogic processor, a mixed photo and text original could reproduce a clear detail of photo image.

(4) Clear image of three dimensional object

Based on the CCD technology, ScanCopier could break through the limit of two dimensions, and produce a clear image for a three dimensional object.

(5) Reduction or enlargement from 25% to 400%

ScanCopier provides reduction or enlargement for your original from 25% to 400%. You can access the feature through the preset ratio or in 1% increment.

(6) Auto background removal

If your original comes with background, you can reproduce a clear image by removing the background using the feature.

(7) A full color copier if connects to a host computer

When ScanCopier is connected to a host computer and a color printer, your ScanCopier is possessed of a full color copy capability.

2. SPECIFICATION

2.1 Basic Specification

2.1 BASIC SPECIFICATION

Product Name:	ScanCopier
ScanCopier Type:	Flatbed
Optical Resolution	300 x 600 dpi
Scanning Mode	30-bit Color (Internal) 10-bit Gray (Internal)
Copy Resolution up to	600 x 600 dpi
Copy Speed	20 ppm (if connect to a 20 ppm laser printer)
Scanning (Copying) Size	8.5” x 14”
Interface	IEEE 1284 (bi-directional) ECP/EPP/SPP
Copy Feature	Zooming From 25%~400% Auto Zooming Auto Background Removal Auto Photo, Text Separation
Power Consumption	15 watts
Photoelectric device	Color CCD
Light Source	Cold Cathode Fluorescent Lamp
Push Button	Equipped
LED	1 LED (power)
Rated Voltage	AC100-120V
Frequency Range	50-60Hz
Physical Dimension	356 mm x 457 mm x 91 mm(WxHxD)
Rated Current	1.25A/12V
Weight	3.7 kg (8.1 lbs)

3. UNPACKING, INSTALLATION, AND TRANSPORTATION

3.1 Precautions of Installation
3.2 Unpacking Procedure
3.3 Installation
3.4 Placing the Original
3.5 Transportation

3.1 PRECAUTIONS OF INSTALLATION

Pay attention to the following matters before unpacking and installation.

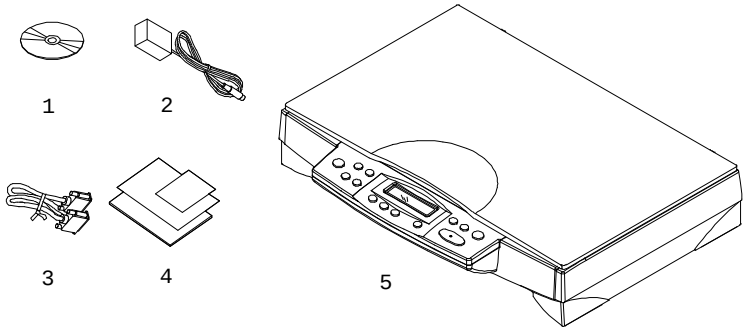
- Do not install in a place where vibration may occur.
- Keep the ScanCopier out of direct sunlight. Do not install near a heat source.
- Do not place the ScanCopier around materials which shut off the circulation of air.
- Do not install in a humid or dusty place.
- Use care not to scratch the glass surface of the ScanCopier or the document holding pad with a clip or staple.
- Do not use the wall socket with connecting devices which may generate noise, for example, air-conditioner, etc.
- Use a suitable AC power source.
- Place the ScanCopier on a level surface.

3.2 UNPACKING PROCEDURE

Unpack the ScanCopier according to the following procedure.

- Remove the packing material.
- Remove the ScanCopier from the shipping container.
- Remove the ScanCopier from the PVC bag.
- Check the items by referring to Figure 3.1.
- For any missing items, please contact your nearest dealer or distributor.

Note: Keep all the packing material in case you may need to return the ScanCopier.



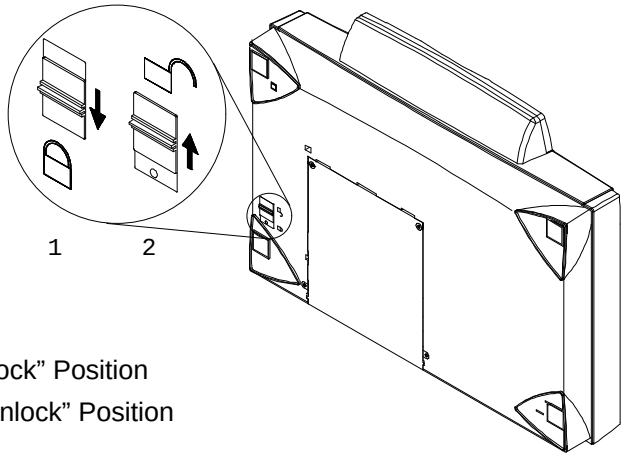
1. Software CD
2. Power Adapter
3. One Parallel Cable
4. Quick Guide
5. ScanCopier main unit

Figure 3.1 Package Contents

3.3 INSTALLATION

(1). Unlocking the ScanCopier

Before you use ScanCopier, be sure to unlock it by moving the lock switch under the ScanCopier to the "Unlock" position(See the following figure). The lock switch is designed to protect the scanning head in case of any damage during shipment.



1. "Lock" Position
2. "Unlock" Position

Figure 3.2 Unlock the ScanCopier

Note: If you need to transport the ScanCopier, be sure to first move the lock switch to the "Lock" position to prevent any damage during transportation.

(2). Connecting to a laser printer

a) Plug one end of the printer cable to the port marked “to printer” on the back of your ScanCopier.

b) Plug the other end to your printer. (See the Figure 3.3)

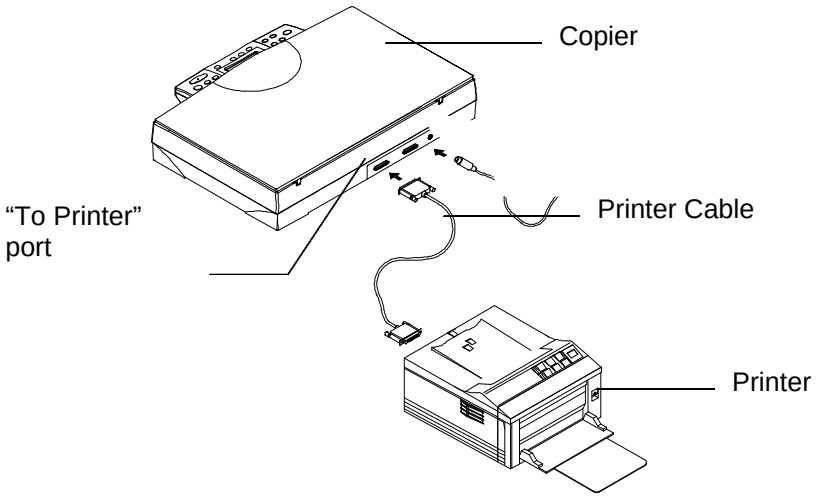


Figure 3.3 Connecting to a laser printer

(3). Connecting to Power

a) Plug the small end of the power cable(supplied) to the power jack on the back of your ScanCopier.

b) Plug the large end of the power cable to the power outlet.

c) Turn on your printer.

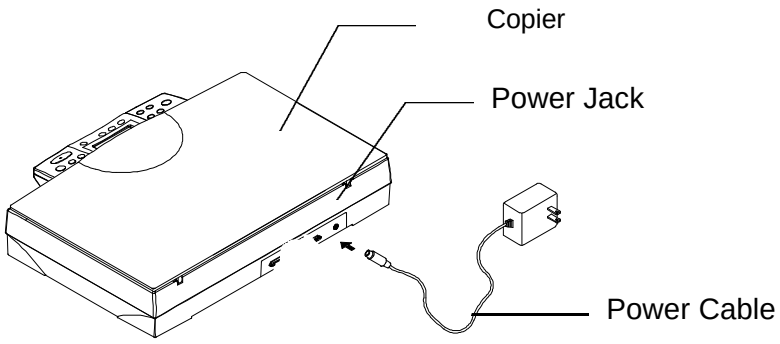


Figure 3.4 Connecting to Power

(4). Connecting to a host computer

a) Remove the printer cable from the parallel port of your computer and plug it into the port marked “To printer” on the back of the ScanCopier. Leave the other end connected to your printer.

b) Plug one end of the supplied parallel cable to the port marked “To PC Parallel” on the back of the ScanCopier and plug the other end into your PC where the printer port cable was plugging in.

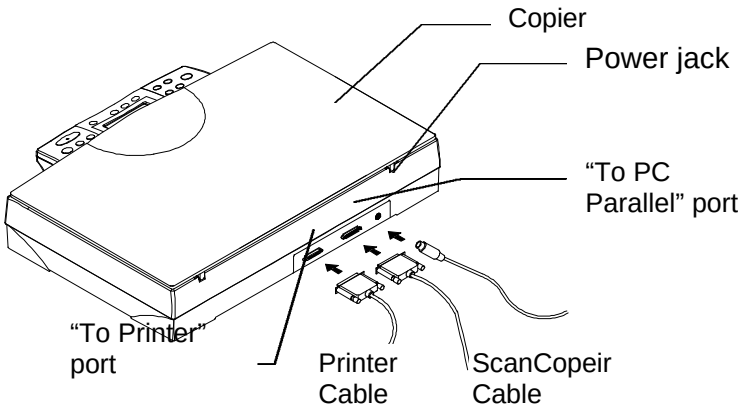


Figure 3.5 ScanCopier cable connection

3.4 PLACING THE ORIGINAL

(1) Place your original face down on the document glass.

(2) Observe that the upper-left corner (front page) of your original is placed beneath the home position mark.

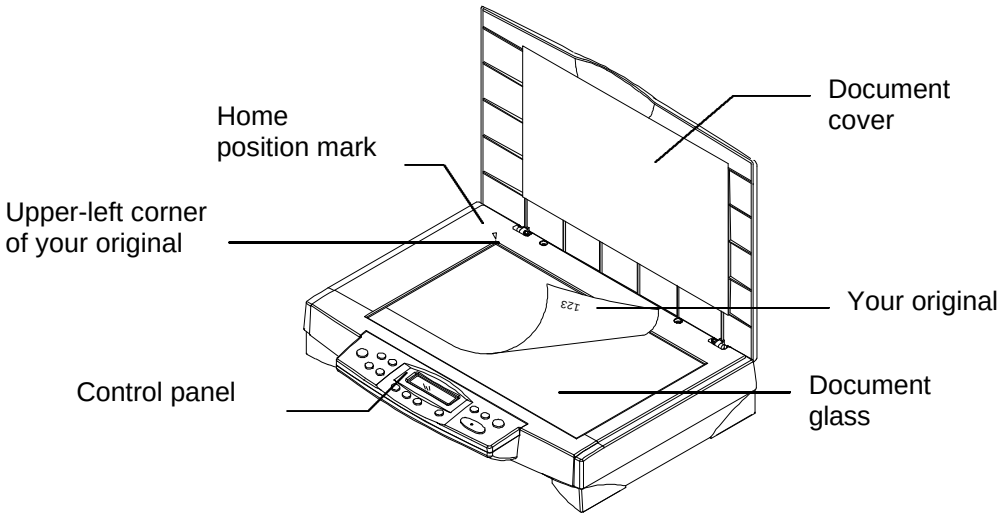


Figure 3.4 Placing the original

3.5 TRANSPORTATION

To move the ScanCopier from where it is installed, for repair or any other reason, make sure to observe the following conditions:

(1) Turn off the power of the ScanCopier.

If the scanning head is located at a place other than the home position, turn the ScanCopier on to return the scanning head to the home position. Before making sure the scanning head is returned to the home position, turn the power supply off.

(2) Move the lock switch to the “lock” position.

(3) Remove the power and printer cables.

(4) Put the ScanCopier in the packing case with the packing material.

4. PARTS IDENTIFICATION

4.1 External View

4.1 EXTERNAL VIEW

4.1.1 FRONT VIEW

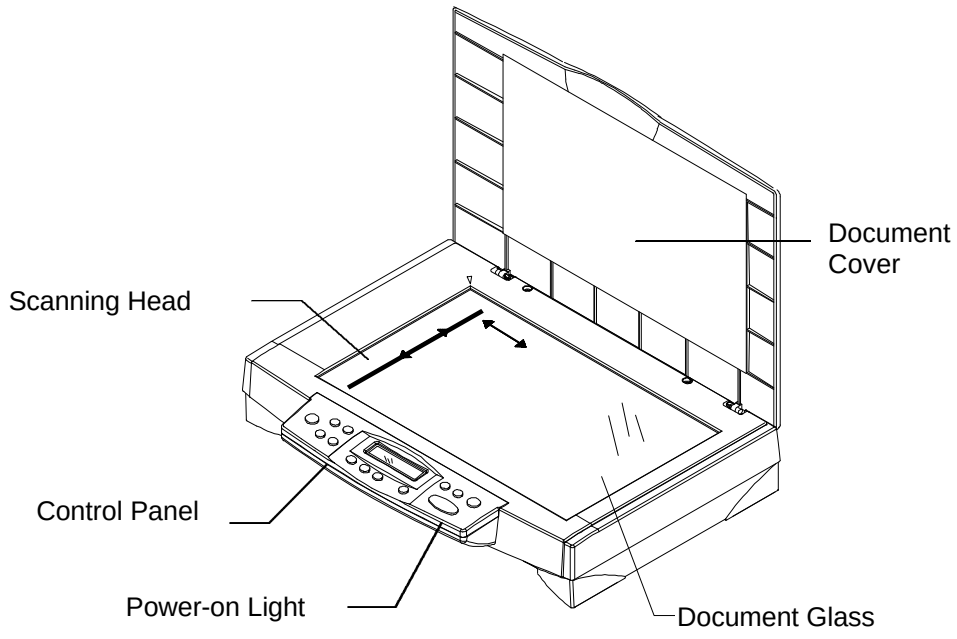


Figure 4.1 Front view

(1) Document cover

Used to hold the document.

(2) Document glass

Document are set on the glass surface.

(3) Scanning head

The major component used to scan the document on the document glass.

(4) Power-on light
Turns on when the ScanCopier is power on.

4.1.2 REAR VIEW

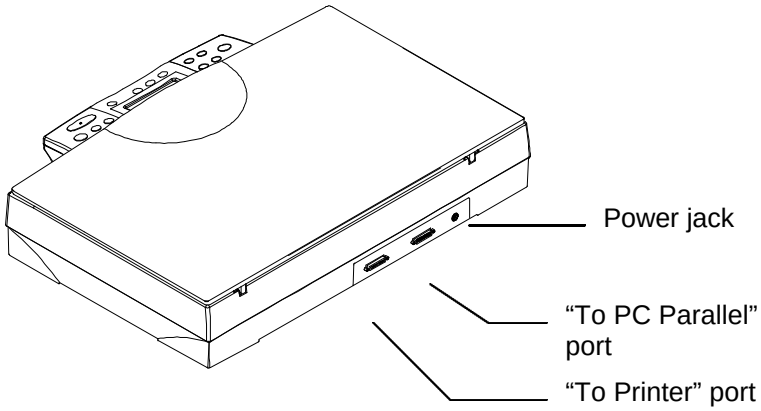


Figure 4.2 Rear view

(1) Power jack

Used to connect power cable.

(2) "To PC Parallel" port

Used to connect parallel cable(supplied).

(3) "To Printer" port

Used to connect printer cable.

4.1.3 TOP VIEW

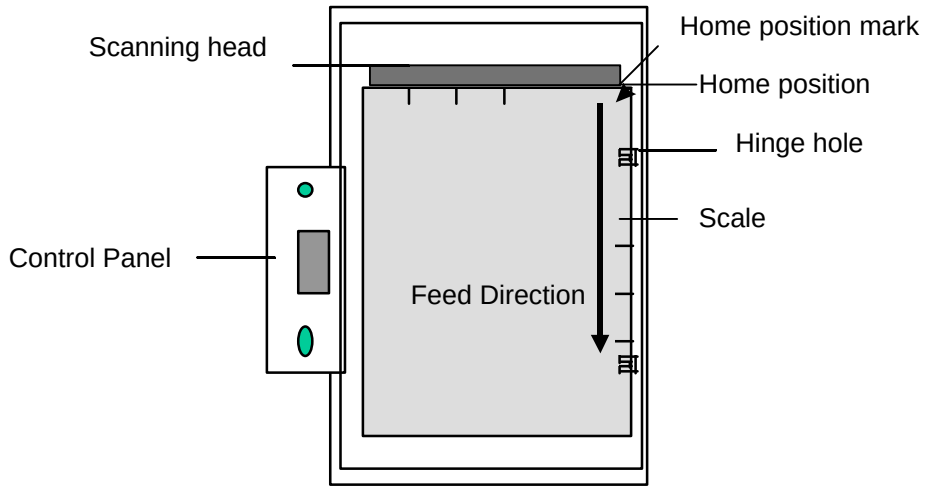


Figure 4.3 Top view

(1) Home position

Scanning begins at this position. The scanning origin and scan area on the computer display depends on the software to be used.

(2) Feed direction

The direction in which the scanning head moves.

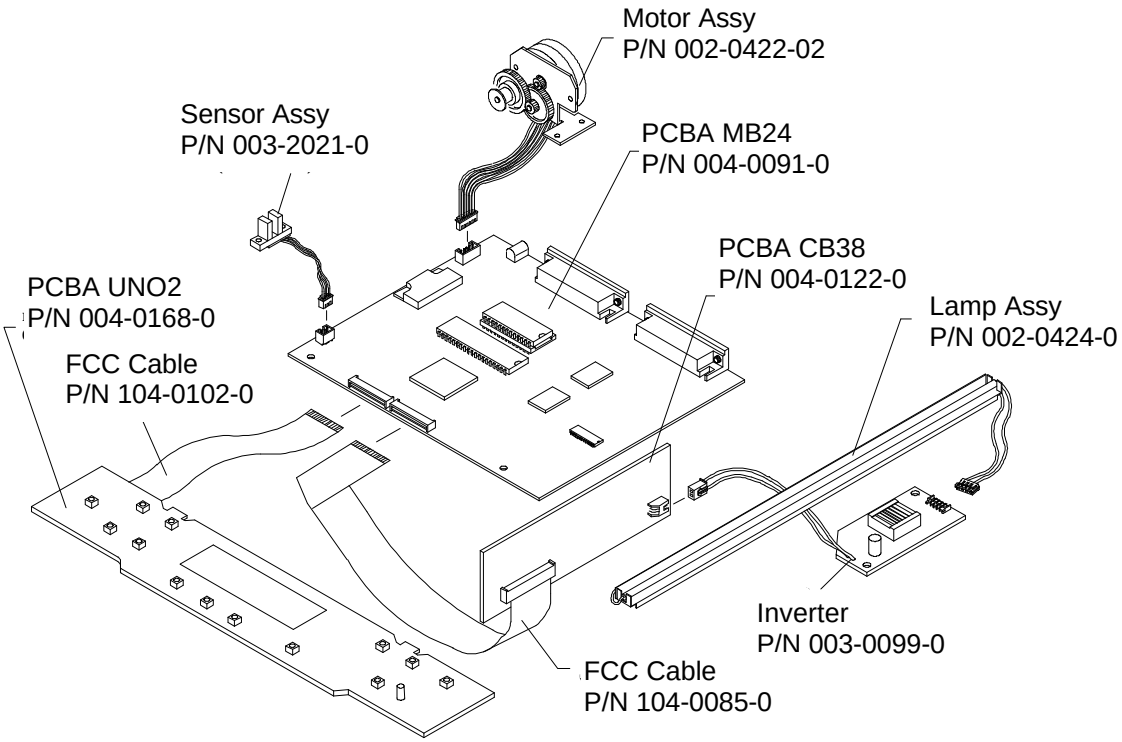
(3) Scale

The document glass provides some fixed sizes, for example, U.S. legal, Letter, A4, B5, A5, and A6 of a document on the glass.

(4) Hinge hole

When installing the document cover or an optional unit, insert the hinge into this hole.

4.1.4 WIRING COMPONENTS EXTERNAL VIEW



5. THEORY OF OPERATION

5.1 INTRODUCTION

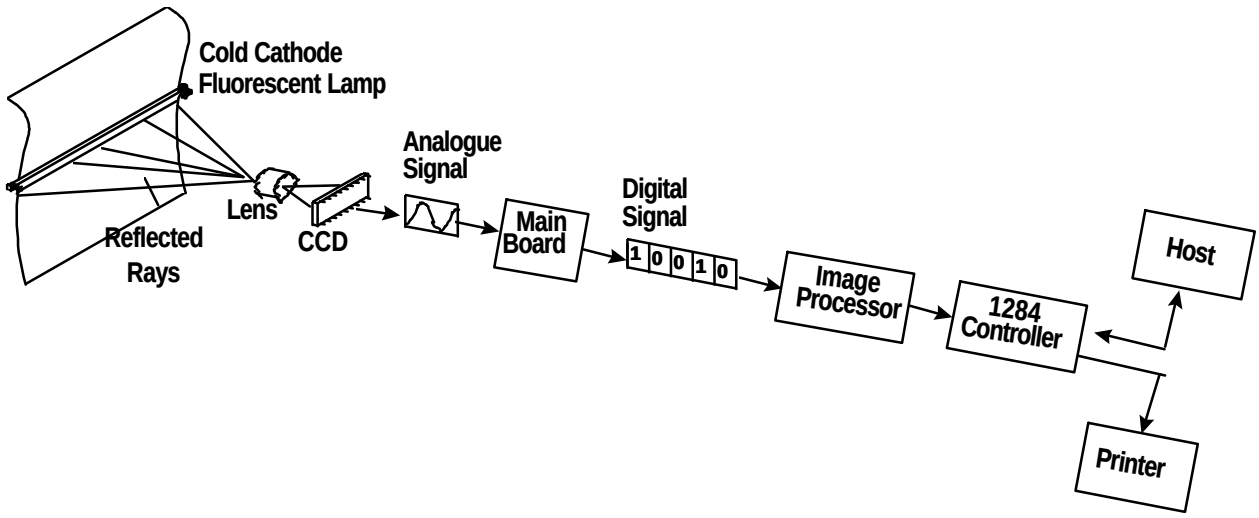


Figure 5.1 Theory of Operation

The reflected rays of the your original as shown in the above Figure 5.1 pass through the lens and creates an image on the CCD (Charged Coupled Device). Then, according to the different light intensity perceived by the CCD, the CCD will transfer these data into a series of analog signals to the main board, where the signals are turned into digital signals. These digital signals flows to the image processor to store into a printer acceptable format then goes to 1284 Controller to transfer to printer or to a host computer.

5.2 MAIN CONTROL UNIT

5.2.1 SYSTEM DIAGRAM

Figure 5.2 shows the system block diagram.

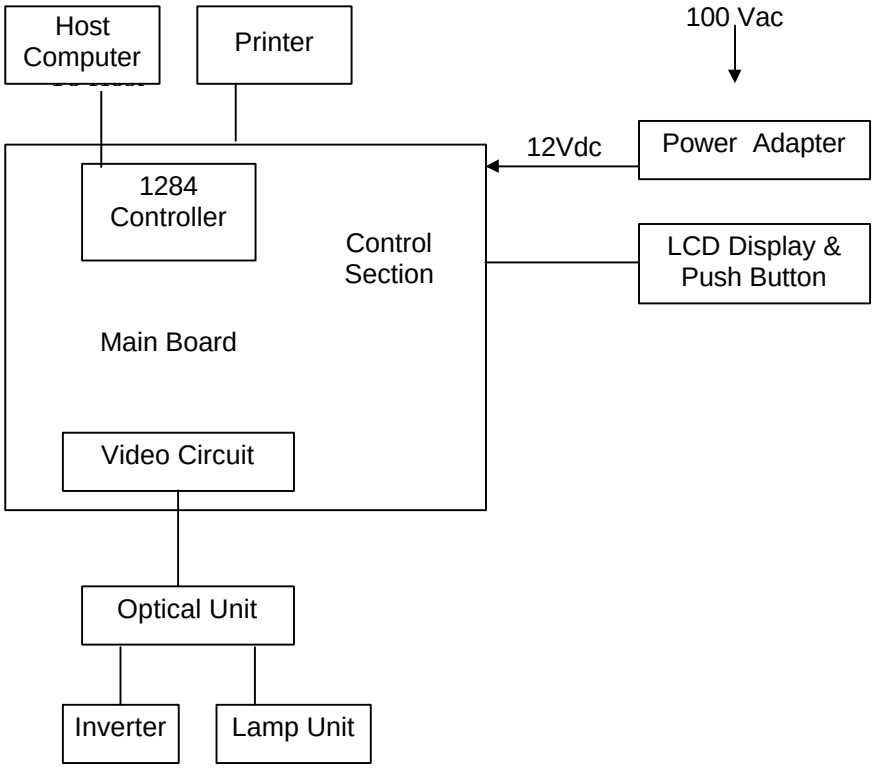


Figure 5.2 System block diagram

5.2.2 MAIN CONTROL CIRCUIT

This ScanCopier is controlled by the 80C32. The 80C32 is configured with a 64-KB external ROM program area, a 256-BYTE internal RAM work area, a 64-KB external RAM work area, 2 timer / counters, 4 I/O ports, 2 external interrupts, and 2 internal interrupts for 2 internal timer / counters.

Address Maps:

- ROM program area:

0000 FFFF	64KB Program

- Internal RAM working area:

00 FF	256-byte Internal Registers

- External RAM working area:

0000 7FFF	System Memory 32KB
2000 2FFF	ASIC Control Register 8KB
2800 28FF	1284 Controller
2C00 2CFF	Image Processor

5.2.3 VIDEO CIRCUIT:

The video circuit of this ScanCopier includes: 1. CCD driving circuit, 2. CCD signal processing circuit.

1. CCD Driving Circuit

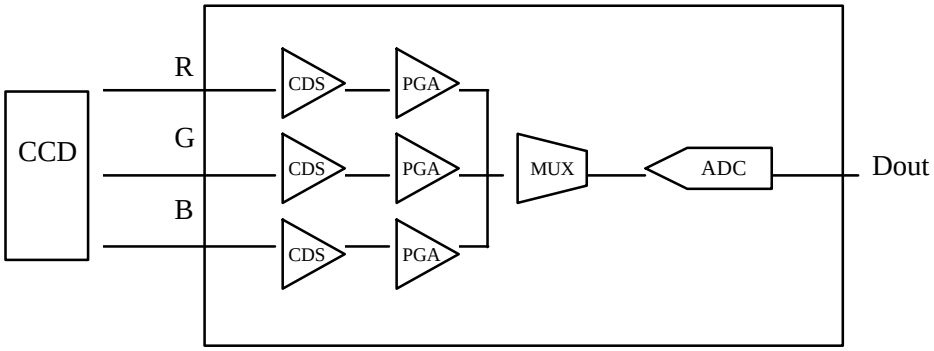
The CCD driving circuit is used to generate correct signals to the CCD, so that the CCD may generate the correct image data.

Signals for CCD:

Pin Assignment for CCD cable

Pin No.	Name	Function
1	A.G.	Analog Ground
2	VOR	CCD Red Channel Output Signal
3	VOG	CCD Green Channel Output Signal
4	VOB	CCD Blue Channel Output Signal
5	A.G.	Analog Ground
6	12Vc	CCD Power Supply
7	12Vc	CCD Power Supply
8	D.G.	Digital Ground
9	RS	CCD Reset Gate
10	CP	Clamp Gate
11	PHI1-	CCD Clock Phase
12	PHI2-	CCD Clock Phase
13	SHR	CCD Red Channel Shift Gate
14	SHG	CCD Green Channel Shift Gate
15	SHB	CCD Blue Channel Shift Gate
16	SH	SHIFT Gate
17	VCC	Digital 5V Power Supply
18	12VI	Inverter Power Supply
19	12VI	Inverter Power Supply
20	I.G.	Inverter Ground
21	I.G	Inverter Ground
22	I.G	Inverter Ground

2. CCD signal processing circuit



CCD Signal Processor

The CCD signal processor includes all the necessary circuitry to perform three-channel conditioning and sampling. The signal chain consists of three-channel correlated double sampling (CDS) and programmable gain adjustment of the CCD output (PGA) is a 10 bit analog to digital connector (ADC) quantizes the analog signal.

* PGA: Programmable gain amplifier

5.2.4 LCD MODULE CIRCUIT

The circuit for LCD module controls the function of the entire module including the LCD Display, the push button on the Control Panel, and the Ready LED.

Pin assignment of LCD module

Pin No.	Name	Function
1	XAD0	80C32 Address/Data Bus bit 0
2	XAD1	80C32 Address/Data Bus bit 1
3	D.G.	Digital Ground
4	XAD2	80C32 Address/Data Bus bit 2
5	XAD3	80C32 Address/Data Bus bit 3
6	D.G.	Digital Ground
7	XAD4	80C32 Address/Data Bus bit 4
8	XAD5	80C32 Address/Data Bus bit 5
9	D.G.	Digital Ground
10	XAD6	80C32 Address/Data Bus bit 6
11	XAD7	80C32 Address/Data Bus bit 7
12	VCC	Digital Power Supply
13	VCC	Digital Power Supply
14	T1	LCD Read/Write Select Signal
15	D.G.	Digital Ground
16	OCS5	LCD Chip Select Signal
17	RS	LCD Register Select Signal
18	D.G.	Digital Ground
19	IOCS4	Push button/LED Control Port
20	D.G.	Digital Ground
21	IOCS3	Push Button Read Port
22	D.G	Digital Ground

5.2.5 SENSOR INPUT

The sensor input includes home position sensor.

Home position sensor

The home position of the carrier motor is detected by photo sensor. The photo transistor transmission to the photo sensor receiver circuit is shown below .

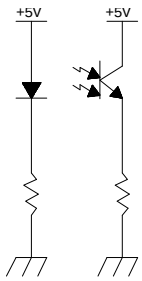
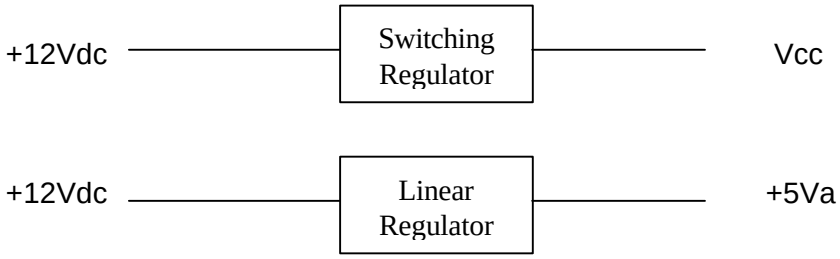


Figure 5.3 Home position sensor

The home position is detected when the carrier passes between the LED and the photo transistor.

5.2.6 SUB POWER SUPPLY CIRCUIT

The sub power supply circuit is provided for the internal analog circuit. Input is 12V and output is Vcc and +5Va. The circuit configuration is shown below:



The sub power supply is used for: A/D, and logic circuits.

5.2.7 POWER SUPPLY

In this system, there is only one type of power supply. Please see Table 5.1 for details.

Table 5.1 Power Adapter

Type / Characteristic	Wall-mount
Input voltage range	200-240V
Input current(max.)	0.5A (rms)
Input frequency	47-63Hz
Max. in-rush current(@115VAC, cold start)	30A
Output voltage	+12Vdc
Min. load current	0.0A
Max. load current	1.25A
Total Power	15W

6. TROUBLESHOOTING

6.1 Troubleshooting Flowchart
6.2 Tables

This section is given to locate and resolve the causes of troubles so as the ScanCopier is always in good working condition. The trouble modes, relevant units and maintenance methods are described below.

When a problem occurs, troubleshoot the problem according to the symptoms it shows.

Check the following first:

1. Is anything operating improperly?
2. Does the problem recur, or is it regular?

Figure 6.1 to Figure 6.3 show the troubleshooting flowcharts.

The causes and maintenance methods for each failure mode are described in Table 6.1 through 6.7

6.1 TROUBLESHOOTING FLOWCHART

6.1.1 POWER ON TO SCANCOPIER READY

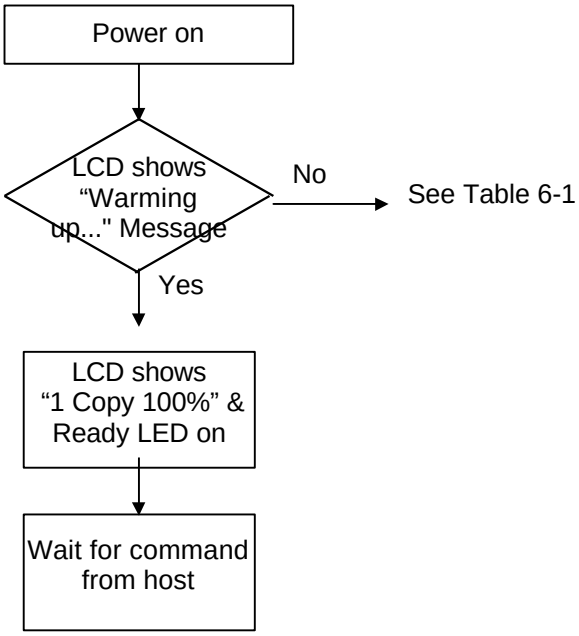


Figure 6.1 Power on to ScanCopier ready

6.1.2 COPIER OPERATION

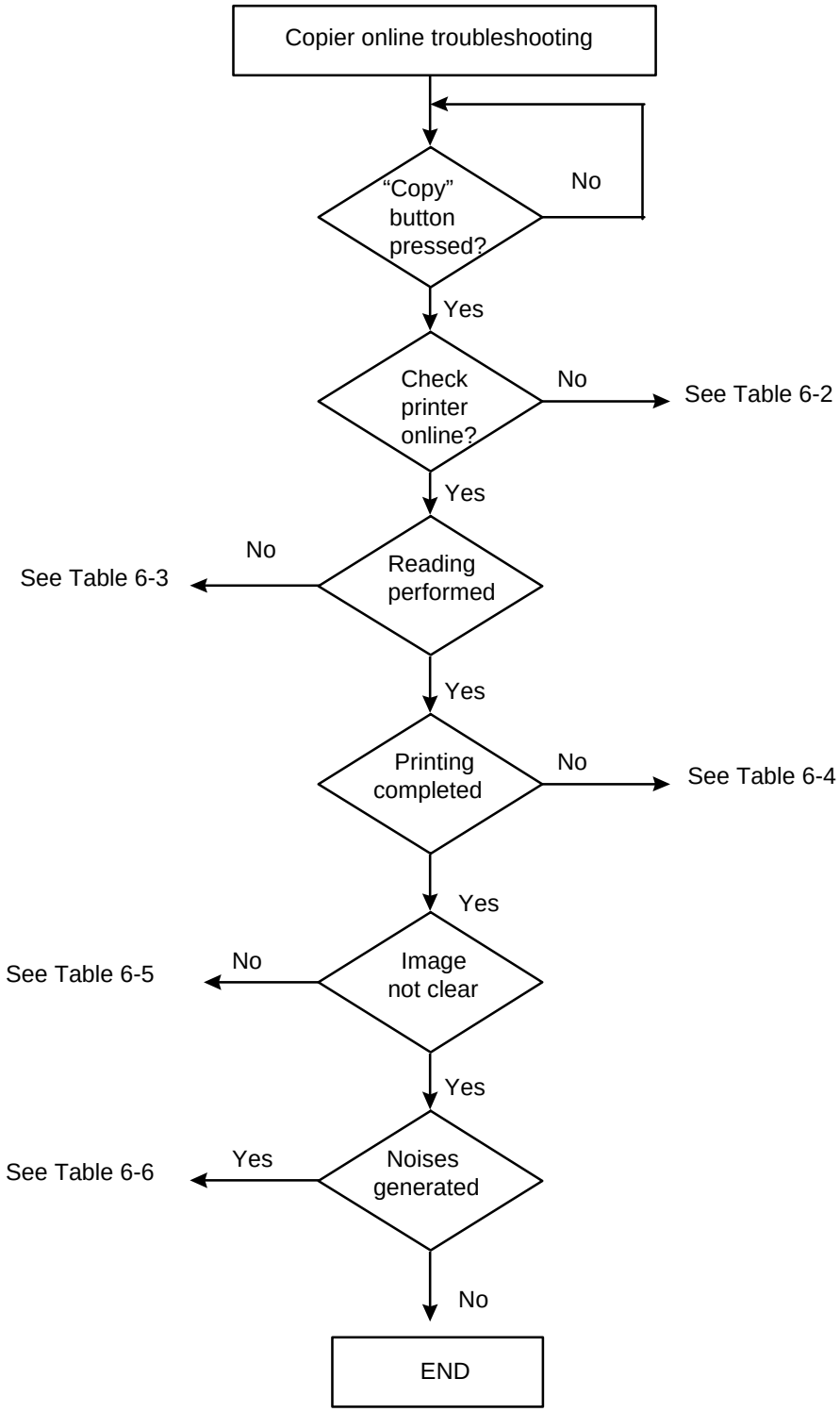


Figure 6.2 Copier operation flowchart

6.1.3 CONTORL PANEL OPERATION

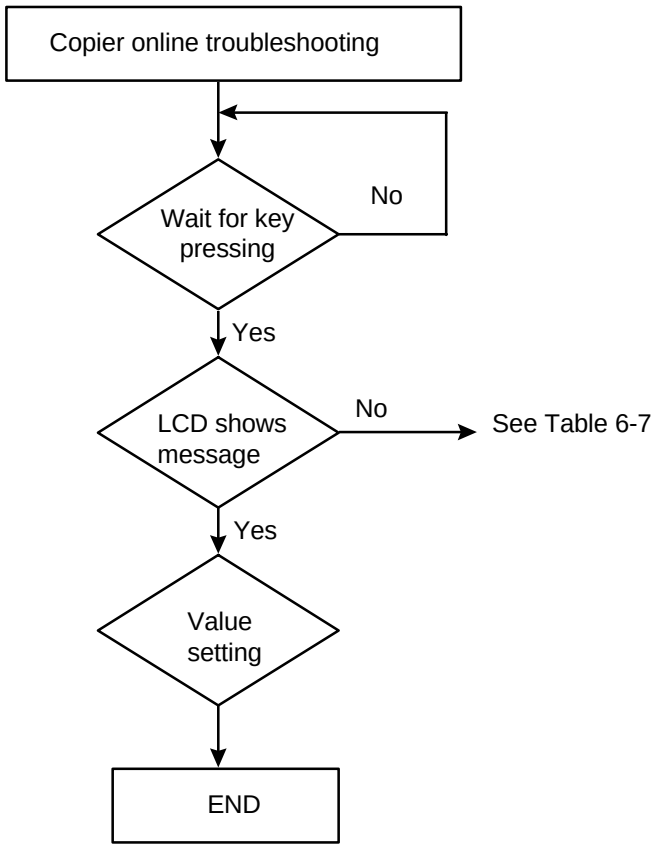


Figure 6.3 Control panel operation

6.2 TABLES

The following tables provide detailed troubleshooting information.

Table 6.1	The Ready LED does not light up or the LCD does not display.
Table 6.2	Printer does not react.
Table 6.3	Optical path dirty or hardware problem.
Table 6.4	Printer does not print.
Table 6.5	Image not clear.
Table 6.6	Noise generated.
Table 6.7	LCD does not show message after command.

6.2.1 LCD DOES NOT DISPLAY

Table 6.1

Cause	Relevant Unit	Check Method	Maintenance Method
Unplugged from outlet	None	Visual check	Insert the AC plug into the outlet
AC power unplugged from unit	None	Visual check	Insert the AC power adapter cable into the unit
AC voltage failure	None	AC outlet voltage check	None
Power adapter output voltage failure	Power unit	Output voltage (+12v) check	Replace the power unit
PCB failure	Main control PCB or the LED board	Tester check (+12V, GND)	Remove the cause or replace the PCB
LCD module main board connection failure	LCD module main board	Visual check	Plug the connector and secure it firmly

6.2.2 PRINTER DOES NOT REACT

Table 6.2

Cause	Relevant Unit	Check Method	Maintenance Method
Printer cable failure	Printer cable	Visual check	Secure printer cable firmly or replace the printer cable
Printer link failure	Main PCB	Visual check	Replace the PCB
	Printer paper jam	Visual check	Remove paper
	Printer paper empty	Visual check	Insert paper
	Printer problem	Visual check	See printer manual
	Printer busy	Visual check	Wait till printer ready

6.2.3 READING IS NOT PERFORMED

Table 6.3

Cause	Relevant Unit	Check Method	Maintenance Method
Scanner cable failure	Scanner cable	Visual check	Attach the scanner cable
Scanner link failure	Main PCB	Visual check	Replace the PCB

6.2.4 PRINTER DOES NOT PRINT

Table 6-4

Cause	Relevant Unit	Check Method	Maintenance Method
Printer does not has “PCL” language	Printer	Visual check	Change “PCL” emulation printer
Paper size incorrect	Paper tray	Visual check	Replace paper tray
Printer problem		Visual check	Check printer

6.2.5 IMAGE UNCLEAR

Table 6-5

Cause	Relevant Unit	Check Method	Maintenance Method
Lamp too dark	Lamp	Visual check	Replace the lamp
Dirt on flatbed glass	Flatbed glass	Visual check	Clean the flatbed glass with isopropyl alcohol
Printer toner low	Printer toner	Visual check	Check printer toner or replace the toner
Printer memory not enough	Printer	Visual check	Add printer memory

6.2.6 NOISE GENERATED

Table 6-6

Cause	Relevant Unit	Check Method	Maintenance Method
Motor unit failure	Motor unit	Replace the motor unit	Replace the motor
Main control PCB failure	Main control PCB	Replace the main control PCB	Replace the main control PCB
Scanning module failure	Scanning module	Check scanning module shakiness	Replace the scanning module
Dirt on rail	None	Visual check	Clean the rail with oil

6.2.7 LCD DOES NOT SHOW MESSAGE AFTER COMMAND

Table 6-7

Cause	Maintenance method
LCD module cable failure	Attach the LCD module cable and secure it firmly
LCD problem	Replace the LCD module
Push button failure	Replace the LCD module

7. PREVENTIVE MAINTENANCE

7.1 Cleaning

This ScanCopier is designed to be free of maintenance. However, it is suggested to perform preventative maintenance in the shorter term either every 6 months or every 60,000 sheets scanning to ensure a consistently optimum performance.

7.1 CLEANING THE DOCUMENT GLASS

There are times when the document cover and document glass is contaminated with ink, toner particles or paper coatings. In this case, the ScanCopier will have to be cleaned frequently to ensure the best performance.

Follow the cleaning procedure as below:

(1) Open the document cover.

(2) Dip a clean cloth with non-corrosion solvent like alcohol (purity above 99.5%).

(3) Wipe the document cover and the document glass gently as shown in Figure 7.1 Continue until l the entire document cover and document glass is cleaned and observe that no cleanser remains on the surface.

(4) Close the document cover. Your ScanCopier is now ready for use.

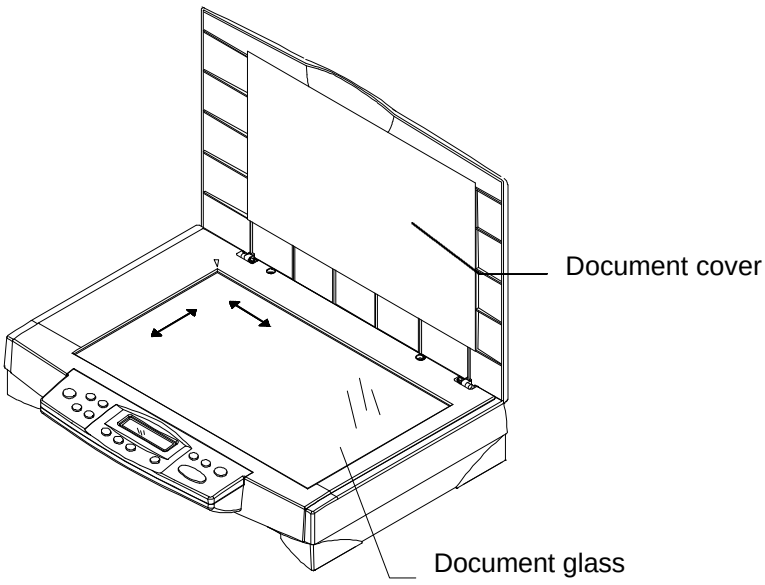


Figure 7.1 Cleaning

8. DISASSEMBLY

8.1 Service Tools
8.2 Lubricants
8.3 Procedure for Disassembly and Reassembly

8.1 SERVICE TOOLS

Table 7.1 describes the maintenance tools necessary for the maintenance of this equipment.

No.	Name	Description
1	Minus screwdriver	Idler pulley module screw
2	Philips screwdriver (magnetic)	Nominal No.2 M3, M4
3	Oil	Shell “Terrace Oil 46”
4	Grease	Shell “Alvania Grease No.2”
5	Alcohol (Isopropyl 91% >)	Cleaning
6	Digital voltmeter	With 0.01 V range
7	Oscilloscope	100 MHz or more with external sweep
8	Blower	Cleaning

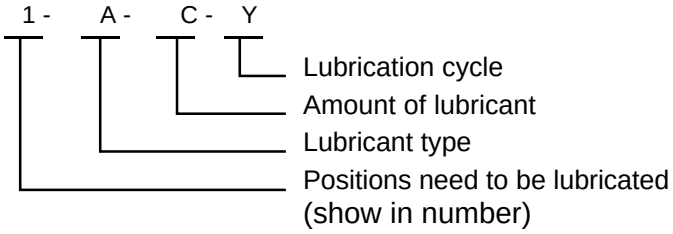
Table 8.1 Maintenance tools

8.2 LUBRICANTS

This section describes the items to check and the places to lubricate when maintenance parts are replaced.

8.2.1 MECHANICAL UNIT LUBRICATION

This lubrication method:



1. Positions need to be lubricated:
   The positions need to be lubricated is indicated in numbers.
2. Lubricant type:
   A: Shell Alvania Grease No. 2
   B: Shell Terrace Oil 46
3. Amount of lubricant:
   C: Coat thinly uniformly
4. Lubrication cycle:
   Y: Every year

Table 8.2 below shows the position to be lubricated.

Lubrication Position	Lubricant Type	Lubricant Amount	Lubrication Cycle	Lubrication Position
1	B	C	Y	Sliding rod
2	A	C	Y	Sliding frame

Table 8.2

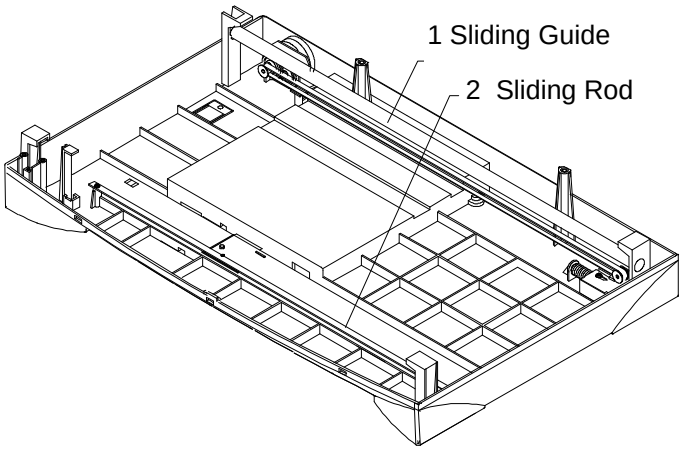


Figure 8.1 Positions need to be lubricated

8.3 PROCEDURE FOR DISASSEMBLY AND REASSEMBLY

8.3.1 NOTES ON DISASSEMBLY

(1) Clean the disassembly and assembly location.

(2) Disconnect the power cable and remove the AC plug from the outlet before disassembly and assembly.

(3) Follow the disassembly and assembly procedures. Never loosen the screws of parts that must not be disassembled.

(4) Store the disassembled parts in a clean place to avoid loss.

(5) After replacement, check the contacts and spare part mounting.

(6) Assemble the parts in reverse order of disassembly procedure.

8.3.2 DOCUMENT COVER

(1) As shown in the figure below, lift the document cover to remove the studs from the hinge holes. The studs are loosely attached to the hinge holes in the purpose to cover your original when it is a few inches high.

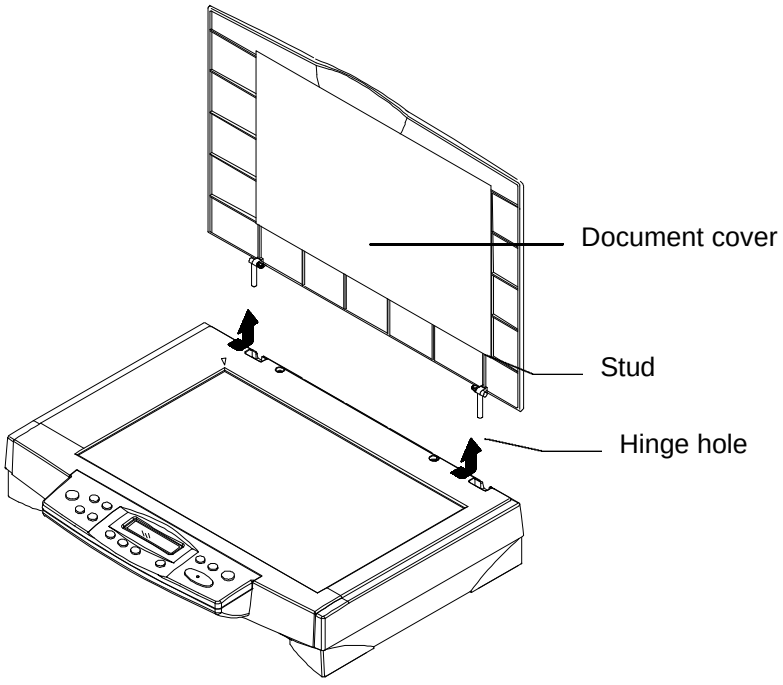


Figure 8.2 Document cover removal

8.3.3 UPPER HOUSING

(1) Remove the document cover as described in the previous section.

(2) As shown in the figure below, loosen the fixing screws with a Philips screwdriver.

(3) Remove the upper housing by lifting it gently.

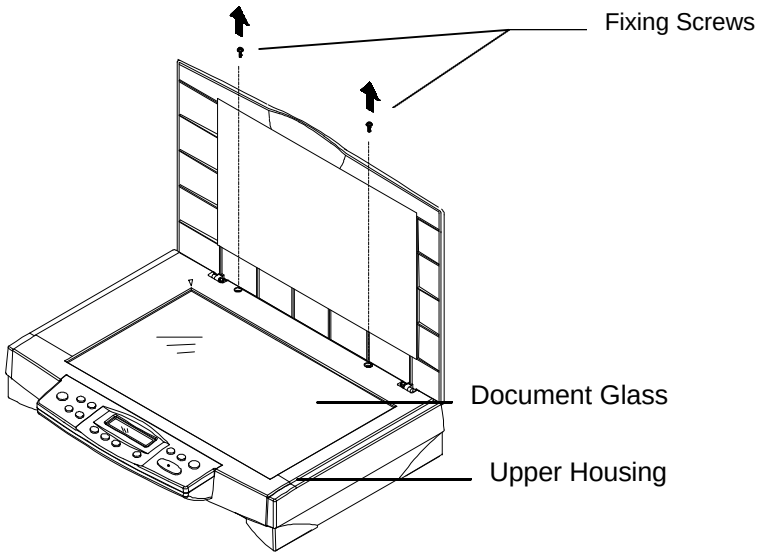


Figure 8.3 Upper housing removal

8.3.4 MAIN CONTROL BOARD ASSEMBLY

(1) Loosen the fixing screws of the metal cover from the bottom housing as shown in the figure below.

(2) Loosen the fixing screws to remove the metal cover.

(3) Loosen the fixing screws of the SCSI connector with proper tool.

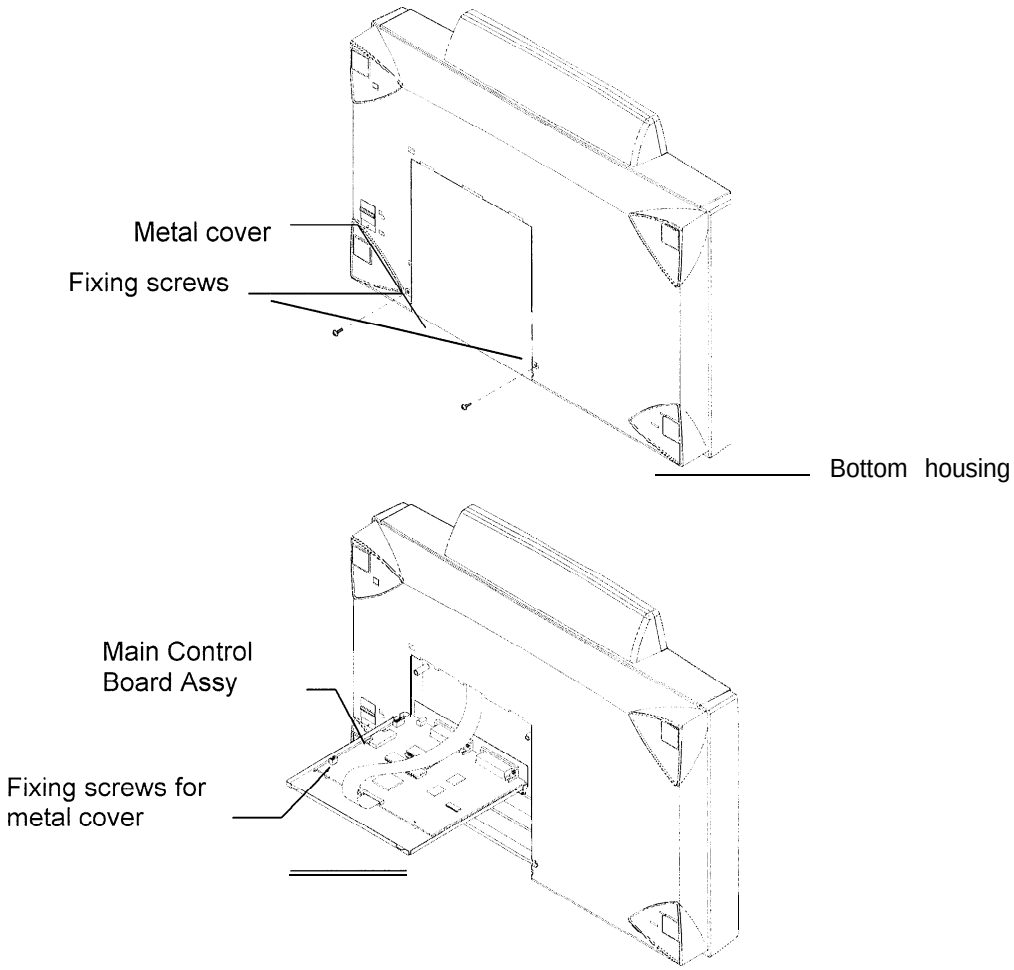


Figure 8.4 Main control PCBA removal

8.3.5 MOTOR BELT

(1) Remove upper housing and main control PCBA. (See section 8.3.4 and 8.3.4)

(2) Disconnect the motor belt by releasing the belt spring as shown in the figure below.

Note:
During the assembling process, keep the belt straight in center line.

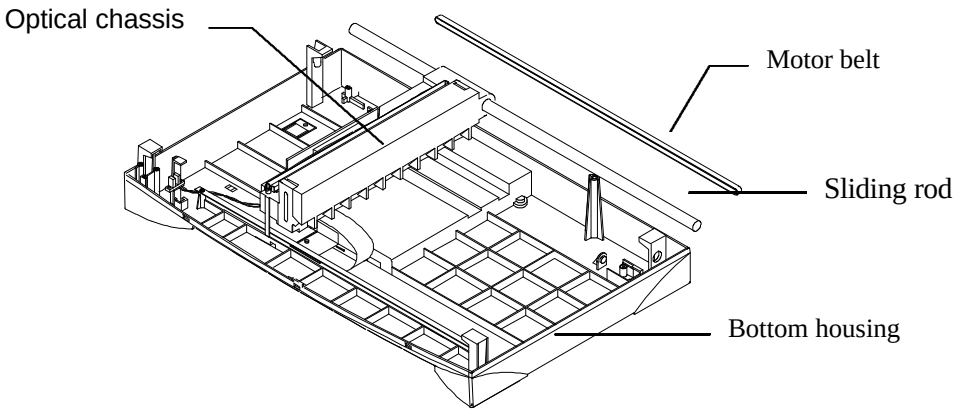


Figure 8.5 Belt removal

8.3.6 OPTICAL CHASSIS

DISASSEMBLING PROCEDURE

(1) Remove the upper housing. (See section 8.3.3)

(2) Remove the main control PCBA. (See section 8.3.4)

(3) Remove the cable clamp for the CCD flat cable.

(4) Disconnect the motor belt by releasing the belt spring. (See section 8.3.5)

(5) Lift the sliding rod and pull it out.

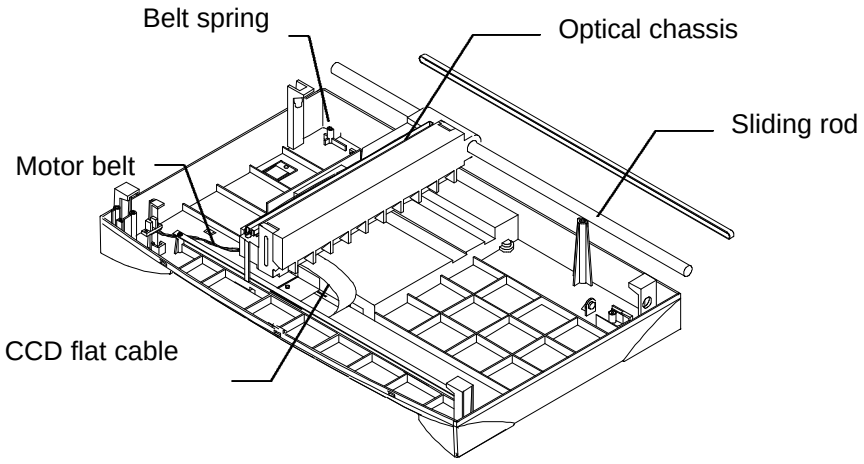


Figure 8.6 Optical chassis removal

Attention: Do not remove the flat cable from the optical chassis.

ASSEMBLING PROCEDURE

Assemble the part in reverse order of the disassembling procedure.

Note:

- Do not remove the flat cable from the optical chassis as the flat cable need special tool to reinstall it.
- Any unauthorized action may cause unexpected result and will therefore not be responsible by the manufacturer.

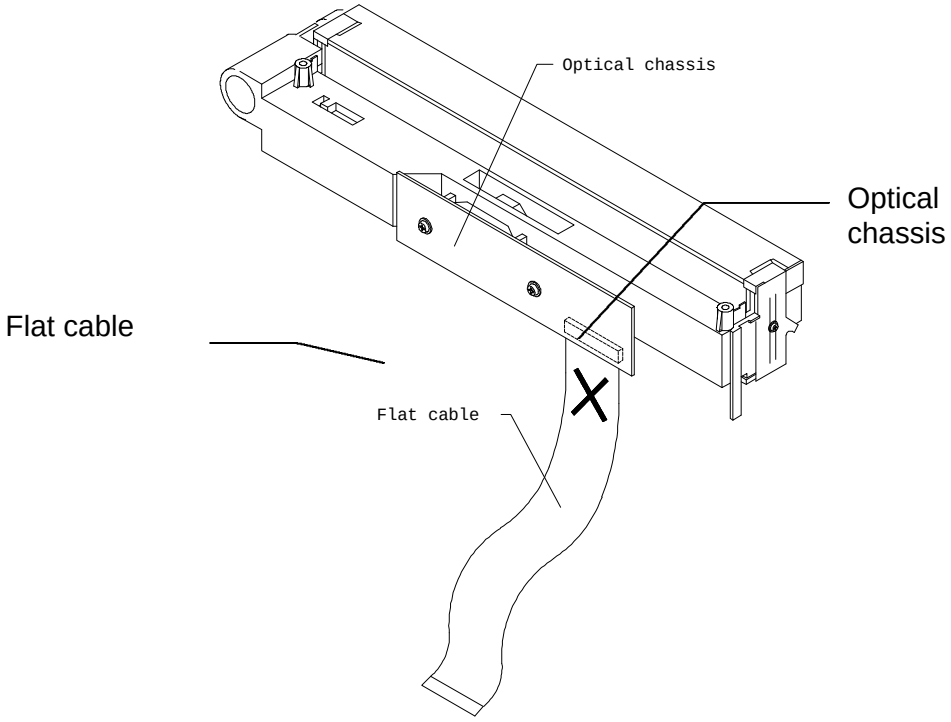


Figure 8.7 The correct direction of the CCD flat cable

8.3.7 CCFL INVERTER PCBA

(1) Remove optical chassis. (See section 8.3.6).

(2) Remove the CCFC inverter PCBA from the optical chassis.

(3) Disconnect the CCFL inverter cable and CCFL inverter PCBA cable.

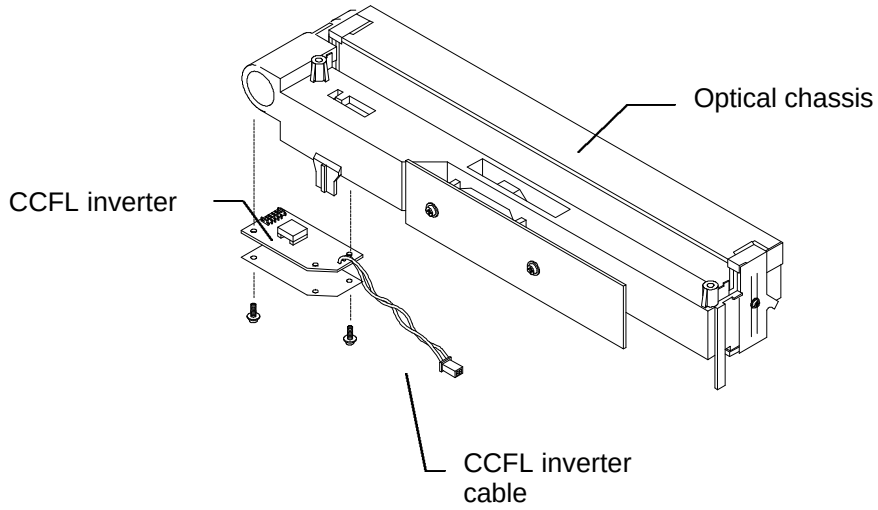


Figure 8.7 CCFC Inverter PCBA removal

8.3.8 LAMP ASSEMBLY

(1) Remove the CCFC inverter (See section 8.3.7)

(2) Loosen the fixing screws of the lamp holder.

(3) Disconnect and replace the old lamp assembly with a new one.

(4) Fix the lamp assembly in place with the fixing screw.

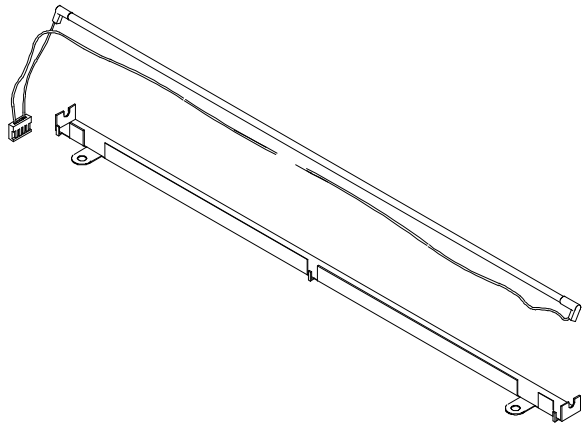


Figure 8.8 Lamp assembly removal

8.3.9 MOTOR UNIT

(1) Remove upper housing. (See section 8.3.3)

(2) Remove the optical chassis and the CCFL inverter PCBA. (See section 8.3.4 and 8.3.7)

(3) Remove the lamp assembly by loosing the fixing screws. (See section 8.3.8)

(4) Loosen the fixing screws as shown in the figure below.

(5) Remove the motor cable connector.

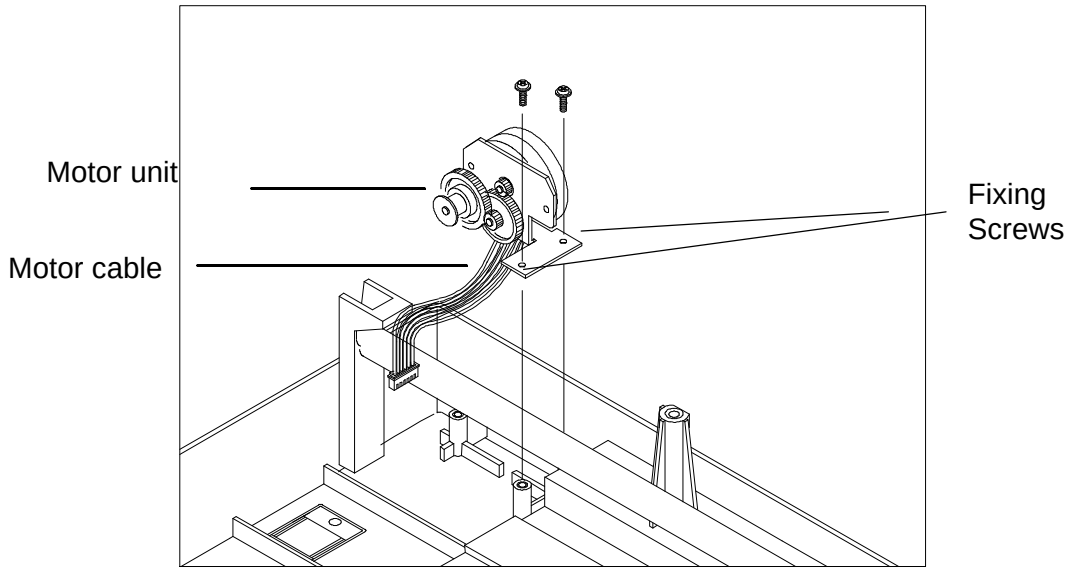


Figure 8.9 Motor unit removal

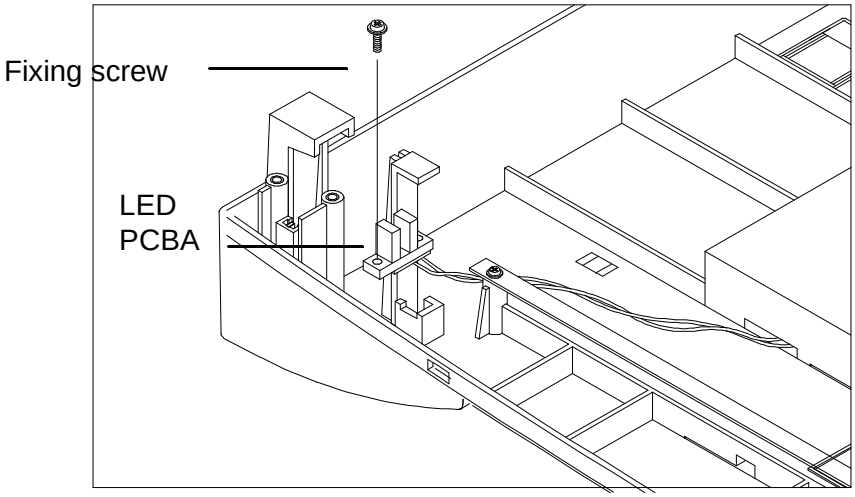
8.3.10 HOME POSITION SENSOR PCBA REPLACEMENT

(1) Remove the upper housing. (See section 8.3.3.)

(2) Remove the main control PCBA (See section 8.3.4) and disconnect the LED cable.

(3) Loosen the fixing screw to remove the LED PCBA and replace a new one.

(4) Reassemble the upper housing and the main board.



8.3.11 LED PCBA

(1) Remove the upper housing. (See section 8.3.3.)

(2) Remove the main control PCBA (See section 8.3.4) and disconnect the LED cable.

(3) Loosen the fixing screw to remove the LED PCBA and replace a new one.

(4) Reassemble the upper housing and the main board.

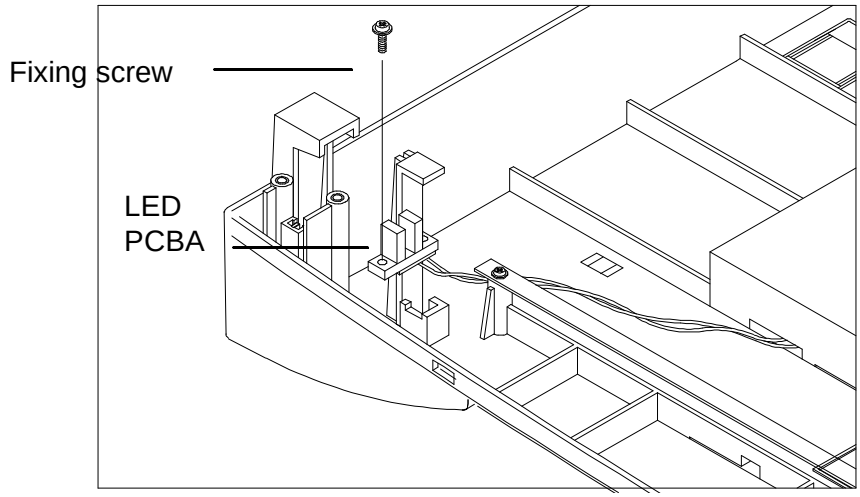
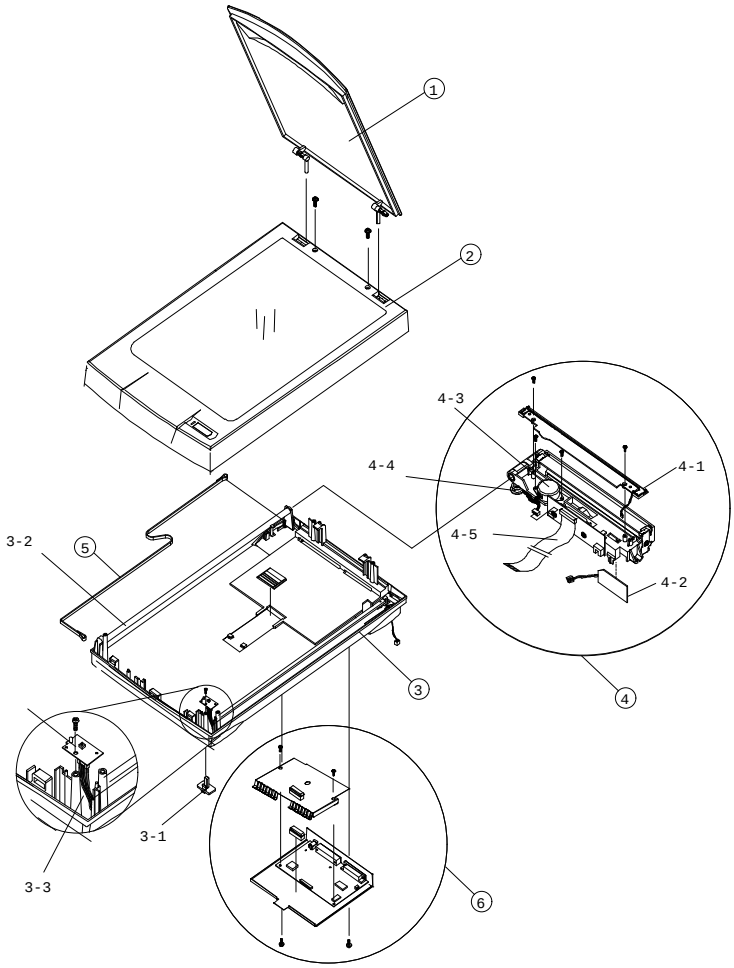


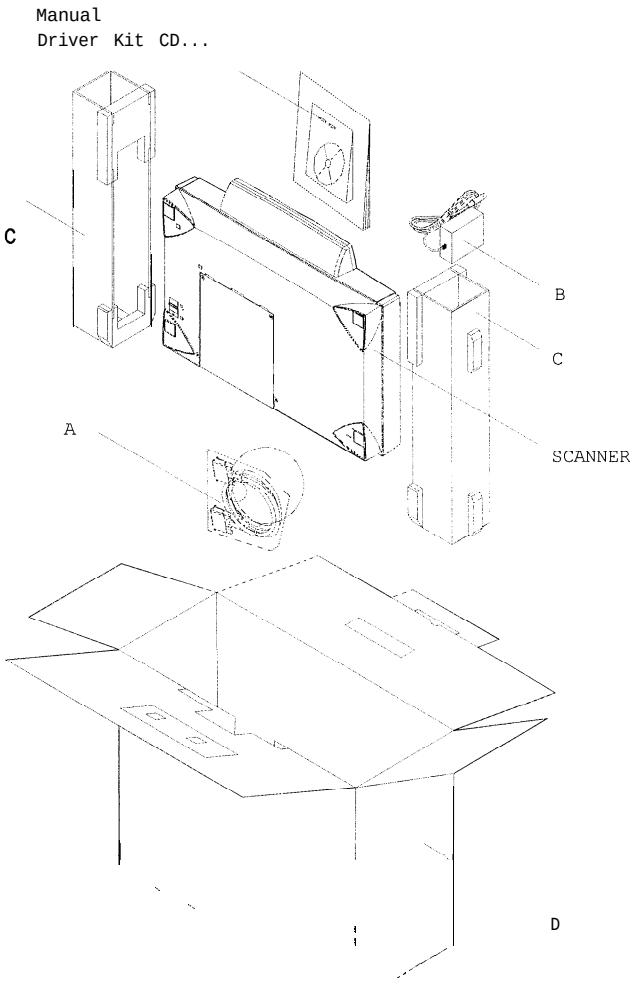
Figure 8.10 LED PCBA removal

9. PARTS

9.1 Spare Parts List

9.1 SPARE PARTS LIST




Manual
Driver Kit CD...
C
B
C
A
SCANNER
D

ITEM	PART NAME	AVISION PART NO.	QT Y UNIT
1	DOCUMENT COVER ASSEMBLY	003-7249-0	1
2	UPPER HOUSING MODULE	003-7250-0	1
3	BOTTOM HOUSING ASSEMBLY	003-7251-0	1
3-1	SHIPPING LOCK	003-7252-0	1
4	OPTICAL ASSEMBLY	003-7253-0	1
4-1	CCFL ASSEMBLY	003-7254-0	1
4-2	INVERTER	003-7255-0	1
5	MOTOR MODULE	003-7256-0	1
6	BELT ASSEMBLY	003-7257-0	1
7	MAIN BOARD ASSEMBLY (PCBA MB24)	003-7258-0	1
8	CONTROL UNIT	003-7262-0	1
8-1	CONTROL COVER ASSEMBLY	003-7260-0	1
8-2	CONTROL BOARD ASSEMBLY	003-7261-0	1
9	IDER PULLY ASSEMBLY	03-7263-0	1
A	DB25P CABLE	003-7046-0	1
B	Power Adaptor		
B-1	Plug-In Power Adaptor, 12V/1.25A, (15W),100-120V	003-7125-0	1
B-2	Plug-In Power Adaptor, 12V/1.25A, (EIAJ) FULL RANGE	003-7259-0	1
C	PACKING ASSEMBLY	003-5162-0	1
D	CARTON	073-0304-0	1

Table 9.1 Spare Parts forScanCopier